

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/212,270

DATE: 04/08/1999

TIME: 09:16:10

Input Set: I212270.RAW

<p>This Raw Listing contains the General Information Section and up to first 5 pages.</p>
---

ENTERED

```

1  <110> APPLICANT: Catherine Tribouley
2      David Pot
3      Altaf Kassam
4      George Lamson
5  <120> TITLE OF INVENTION: New Members of TNF and TNFR Families
6  <130> FILE REFERENCE: 1408-002
7  <140> CURRENT APPLICATION NUMBER: US/09/212,270
8  <141> CURRENT FILING DATE: 1998-12-16
9  <160> NUMBER OF SEQ ID NOS: 16
10 <170> SOFTWARE: FastSEQ for Windows Version 3.0
11 <210> SEQ ID NO 1
12 <211> LENGTH: 285
13 <212> TYPE: PRT
14 <213> ORGANISM: human
15 <400> SEQUENCE: 1
16     Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
17         1             5             10             15
18     Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
19             20             25             30
20     Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
21             35             40             45
22     Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
23             50             55             60
24     Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
25             65             70             75             80
26     Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly
27             85             90             95
28     Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu
29             100            105            110
30     Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
31             115            120            125
32     Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln
33             130            135            140
34     Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys
35             145            150            155            160
36     Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
37             165            170            175
38     Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr
39             180            185            190
40     Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met
41             195            200            205
42     Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu
43             210            215            220
44     Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu

```

PAGE: 2

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/212,270

DATE: 04/08/1999

TIME: 09:16:10

Input Set: I212270.RAW

```

45      225      230      235      240
46      Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly
47              245      250      255
48      Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu
49              260      265      270
50      Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
51              275      280      285
52 <210> SEQ ID NO 2
53 <211> LENGTH: 153
54 <212> TYPE: PRT
55 <213> ORGANISM: human
56 <400> SEQUENCE: 2
57      Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly Glu Arg Glu Glu
58      1              5              10              15
59      Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala Cys Arg Cys Arg
60              20              25              30
61      Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu His Ala Ser Cys
62              35              40              45
63      Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Thr Pro Ser Gln Asn Thr
64      50              55              60
65      Gln Cys Gln Pro Cys Pro Pro Gly Thr Phe Ser Ala Ser Ser Ser Ser
66      65              70              75              80
67      Ser Glu Gln Cys Gln Pro His Arg Asn Cys Thr Ala Leu Gly Leu Ala
68              85              90              95
69      Leu Asn Val Pro Gly Ser Ser Ser His Asp Thr Leu Cys Thr Ser Cys
70              100              105              110
71      Thr Gly Phe Pro Leu Ser Thr Arg Val Pro Gly Ala Glu Glu Cys Glu
72              115              120              125
73      Arg Ala Val Ile Asp Phe Val Ala Phe Gln Asp Ile Ser Ile Lys Arg
74              130              135              140
75      Leu Gln Arg Leu Leu Gln Ala Leu Glu
76      145              150
77 <210> SEQ ID NO 3
78 <211> LENGTH: 210
79 <212> TYPE: PRT
80 <213> ORGANISM: human
81 <400> SEQUENCE: 3
82      Met Ala Leu Lys Val Leu Pro Leu His Arg Thr Val Leu Phe Ala Ala
83      1              5              10              15
84      Ile Leu Phe Leu Leu His Leu Ala Cys Lys Val Ser Cys Glu Thr Gly
85              20              25              30
86      Asp Cys Arg Gln Gln Glu Phe Lys Asp Arg Ser Gly Asn Cys Val Leu
87      35              40              45
88      Cys Lys Gln Cys Gly Pro Gly Met Glu Leu Ser Lys Glu Cys Gly Phe
89      50              55              60
90      Gly Tyr Gly Glu Asp Ala Gln Cys Val Pro Cys Arg Pro His Arg Phe
91      65              70              75              80
92      Lys Glu Asp Trp Gly Phe Gln Lys Cys Lys Pro Cys Ala Asp Cys Ala
93              85              90              95
94      Leu Val Asn Arg Phe Gln Arg Ala Asn Cys Ser His Thr Ser Asp Ala

```

PAGE: 3

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/212,270

DATE: 04/08/1999

TIME: 09:16:10

Input Set: I212270.RAW

```

95          100          105          110
96    Val Cys Gly Asp Cys Leu Pro Gly Phe Tyr Arg Lys Thr Lys Leu Val
97          115          120          125
98    Gly Phe Gln Asp Met Glu Cys Val Pro Cys Gly Asp Pro Pro Pro Pro
99          130          135          140
100   Tyr Glu Pro His Cys Thr Ser Lys Val Asn Leu Val Lys Ile Ser Ser
101   145          150          155          160
102   Thr Val Ser Ser Pro Arg Asp Thr Ala Val Ala Ala Val Ile Cys Ser
103          165          170          175
104   Ala Leu Ala Thr Val Leu Leu Ala Cys Ser Ser Cys Val Ser Ser Thr
105          180          185          190
106   Ala Arg Gly Ser Ser Trp Arg Arg Asn Pro Ala Val Ser Ser His Pro
107          195          200          205
108   Ser Val
109          210
110   <210> SEQ ID NO 4
111   <211> LENGTH: 151
112   <212> TYPE: PRT
113   <213> ORGANISM: human
114   <400> SEQUENCE: 4
115   Met Ala Leu Lys Val Leu Pro Leu His Arg Thr Val Leu Phe Ala Ala
116       1          5          10          15
117   Ile Leu Phe Leu Leu His Leu Ala Cys Lys Val Ser Cys Glu Thr Gly
118          20          25          30
119   Asp Cys Ser Arg Gln Gln Glu Phe Lys Asp Arg Ser Gly Asn Cys Val
120          35          40          45
121   Leu Cys Lys Gln Cys Gly Pro Gly Met Glu Leu Ser Lys Glu Cys Gly
122          50          55          60
123   Phe Gly Tyr Gly Glu Asp Ala Gln Cys Val Pro Cys Arg Pro His Arg
124          65          70          75          80
125   Phe Lys Glu Asp Trp Gly Phe Gln Lys Cys Lys Pro Cys Ala Asp Cys
126          85          90          95
127   Ala Leu Val Asn Arg Phe Gln Arg Ala Asn Cys Ser His Thr Ser Asp
128          100          105          110
129   Ala Val Cys Gly Asp Cys Leu Pro Gly Phe Tyr Arg Lys Thr Lys Leu
130          115          120          125
131   Val Gly Phe Gln Asp Met Glu Cys Val Pro Cys Gly Asp Pro Pro Pro
132          130          135          140
133   Pro Tyr Glu Pro His Cys Glu
134          145          150
135   <210> SEQ ID NO 5
136   <211> LENGTH: 205
137   <212> TYPE: PRT
138   <213> ORGANISM: human
139   <400> SEQUENCE: 5
140   Met Val Gln Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu
141       1          5          10          15
142   Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly Glu Gly
143          20          25          30
144   Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala Leu Glu Ala

```

PAGE: 4

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/212,270

DATE: 04/08/1999

TIME: 09:16:10

Input Set: I212270.RAW

```

145          35          40          45
146      Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala Val Leu Thr Gln
147          50          55          60
148      Lys Gln Lys Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala
149      65          70          75          80
150      Thr Ser Lys Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala
151          85          90          95
152      Leu Arg Arg Gly Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile
153          100          105          110
154      Gln Asp Ala Gly Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp
155          115          120          125
156      Val Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg
157          130          135          140
158      Gln Glu Thr Leu Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp
159      145          150          155          160
160      Arg Ala Tyr Asn Ser Gln Tyr Ser Ala Gly Val Pro His Leu His Gln
161          165          170          175
162      Gly Asp Ile Leu Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn
163          180          185          190
164      Leu Ser Pro His Gly Thr Phe Leu Gly Phe Val Lys Leu
165          195          200          205
166      <210> SEQ ID NO 6
167      <211> LENGTH: 1284
168      <212> TYPE: DNA
169      <213> ORGANISM: human
170      <400> SEQUENCE: 6
171      accggtccgg aattccccggg tcgacccacg cgtccgccca cgcgtccgag aagactttga      60
172      aattcttaca aaaactgaaa gtgaaatgag gaagacagat tgagcaatcc aatcggaggg      120
173      taaatgccag caaacctact gtacagtagg ggtagagatg cagaaaaggca gaaaggagaa      180
174      aattcaggat aactctcctg aggggtgagc caagccctgc catgtagtgc acgcaggaca      240
175      tcaacaaaca cagataacag gaaatgatcc attccctgtg gtcacttatt ctaaaaggccc      300
176      caaccttcaa agttcaagta gtgatatgga tgactccaca gaaagggagc agtcacgcct      360
177      tacttcttgc cttaagaaaa gagaagaaat gaaactgaag gagtgtgttt ccacccctcc      420
178      acggaaggaa agccccctctg tccgatcctc caaagacgga aagctgctgg ctgcaacctt      480
179      gctgctggca ctgctgtctt gctgcctcac ggtggtgtct ttctaccagg tggccgccct      540
180      gcaaggggac ctggccagcc tccgggcaga gctgcagggc caccacgcgg agaagctgcc      600
181      agcaggagca ggagcccccaggccgcct ggaggaagct ccagctgtca ccgcgggact      660
182      gaaaatcttt gaaccaccag ctccaggaga aggcaactcc agtcagaaca gcagaaataa      720
183      gcgtgccgtt cagggtccag aagaaacagt cactcaagac tgcttgcaac tgattgcaga      780
184      cagtgaacaa ccaactatac aaaaaggatc ttacacattt gttccatggc ttctcagctt      840
185      taaaagggga agtgccctag aagaaaaaga gaataaaata ttggtcaaag aaactgggta      900
186      cttttttata tatggtcagg ttttatatac tgataagacc tacgccatgg gacatctaata      960
187      tcagaggaag aaggtccatg tctttgggga tgaattgagt ctggtgactt tgtttcgatg      1020
188      tattcaaaat atgcctgaaa cactacccaa taattcctgc tattcagctg gcattgcaaa      1080
189      actggaagaa ggagatgaac tccaacttgc aataccaaga gaaaatgcac aaatatcact      1140
190      ggatggagat gtcacatttt ttggtgcatt gaaactgctg tgacctactt acaccatgtc      1200
191      tgtagctatt ttcctccctt tctctgtacc tctaagaaga aagaatctaa ctgaaaatac      1260
192      aaaaaaaaaa aaaaaaaaaa aaaa      1284
193      <210> SEQ ID NO 7
194      <211> LENGTH: 459

```

PAGE: 5

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/212,270

DATE: 04/08/1999

TIME: 09:16:10

Input Set: I212270.RAW

```

195 <212> TYPE: DNA
196 <213> ORGANISM: human
197 <400> SEQUENCE: 7
198      ctggagcgct gccgctactg caacgtcttc tgcgggggagc gtgaggagga ggcacgggct      60
199      tgccacgcca cccacaaccg tgccctgcgc tgccgcaccg gcttcttcgc gcacgctggt      120
200      ttctgcttgg agcacgcatc gtgtccacct ggtgccggcg tgattgcccc gggcaccccc      180
201      agccagaaca cgcagtgccg gccgtgcccc ccaggcacct tctcagccag cagctccagc      240
202      tcagagcagt gccagcccca ccgcaactgc acggccctgg gcctggccct caatgtgccg      300
203      ggctcttcct cccatgacac cctgtgcacc agctgcactg gcttccccct cagcaccagg      360
204      gtaccaggag ctgaggagtg tgagcgtgcc gtcctcgact ttgtggcttt ccaggacatc      420
205      tccatcaaga ggctgcagcg gctgctgcag gccctcgag      459
206 <210> SEQ ID NO 8
207 <211> LENGTH: 893
208 <212> TYPE: DNA
209 <213> ORGANISM: human
210 <400> SEQUENCE: 8
211      tccggcgccg cggggcagga caaggggaag gaataaacac gtttggtgag agccatggca      60
212      ctcaaggtcc tacctctaca caggacggtg ctcttcgctg ccattctctt cctactccac      120
213      ctggcatgta aagtgagttg cgaaaccgga gattgcaggc agcaggaatt caaggatcga      180
214      tctggaaact gtgtcctctg caaacagtgc ggacctggca tggagttgtc caaggaatgt      240
215      ggcttcggct atggggagga tgcacagtgt gtgccctgca ggccgcaccg gttcaaggaa      300
216      gactgggggt tccagaagtg taagccatgt gcggactgtg cgtgggtgaa ccgctttcag      360
217      agggccaact gctcacacac cagtgatgct gtctgcgggg actgcctgcc aggattttac      420
218      cggaagacca aactggttgg ttttcaagac atggagtgtg tgccctgcgg agaccacact      480
219      cctccctacg aaccacactg taccagcaag gtgaaccttg tgaagatctc ctccaccgtc      540
220      tccagccctc gggacacggc ggtggctgcc gtcactgca gtgctctggc cacggtgctg      600
221      ctgcctgct catcctgtgt gtcactact gcaagaggca gttcatggag aagaaaccca      660
222      gctgtaagct cccatccctc tgtctcactg tgaagtgagc ttgttagcat tgtcacccaa      720
223      gagttctcaa gacacctggc tgagacctaa gacctttaga gcatcaacag ctacttagaa      780
224      tacaagatgc aggaaaacga gcctcttcag gaatctcagg gcctcctagg gatgctggca      840
225      aggctgtgat gtctcaaggc taccaggaaa aaataaaaagt tgtctatacc cta      893
226 <210> SEQ ID NO 9
227 <211> LENGTH: 623
228 <212> TYPE: DNA
229 <213> ORGANISM: human
230 <400> SEQUENCE: 9
231      gaggcaagat tcggcacgag ggcgtttggc gcggaagtgc taccaagctg cggaaaagcgt      60
232      gagtctggag cacagcactg gcgagtagca ggaataaaca cgtttggtga gagccatggc      120
233      actcaaggtc ctacctctac acaggacggt gctcttcgct gccattctct tctactcca      180
234      cctggcatgt aaagtgagtt gcgaaaccgg agattgcagg cagcaggaat tcaaggatcg      240
235      atctggaaac tgtgtcctct gcaaacagtgc cggacctggc atggagttgt ccaaggaaatg      300
236      tggcttcggc tatggggagg atgcacagtg tgtgccctgc aggccgcacc ggttcaaggga      360
237      agactggggt ttccagaagt gtaagccatg tcgggactgt gcgctggtga accgctttca      420
238      gagggccaac tgctcacaca ccagtgatgc tgtctgcggg gactgcctgc caggatttta      480
239      ccggaagacc aaactggttg gttttcaaga catggagtgt gtgccctgcg gagaccacc      540
240      tcctccctac gaaccacact gtgagtgatg tgccaagtgg cagcagacct ttaaaaaaaaa      600
241      aagaaaaaaaa aacaaacaaa aac      623
242 <210> SEQ ID NO 10
243 <211> LENGTH: 1260
244 <212> TYPE: DNA

```

PAGE: 6

**VERIFICATION SUMMARY**  
**PATENT APPLICATION US/09/212,270**

DATE: 04/08/1999  
TIME: 09:16:10

Input Set: I212270.RAW

Line ? Error/Warning

Original Text

-----